

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A hydraulic circuit for linearly driving a machine-tool slider in both directions, comprising [[an]] a hydraulic cylinder (5) whose piston rod (4) is connected to a slider that travels until a first predetermined position for each pass of one or more passes of working operation of a workpiece to be bent, the hydraulic cylinder having two chambers (6, 7) in one of which there is the piston rod (4), both chambers, in order to be in high and low pressure alternatively, communicating with respective ducts (10, 11) of pressurized fluid fed from a reservoir by a pump (15), ducts (10, 11) on which a three-position four-way valve (18), a check valve (12-13), and in a bypass (190) between the check valve and the four-way valve ~~last ones~~, a first throttling valve (19) operate, the throttling valve (19), that is operated to generate an increased pressure in a chamber (6, 7), which is at the moment in a low pressure, in order to slow down said slider in a first work motion when a programmable interval is approached from said first predetermined position for each working pass, characterized in that the hydraulic circuit comprises a second throttling valve (19'), which is mounted in a

bypass (190') symmetrically opposite to said first throttling valve (19) and operated to generate an increased pressure in said other chamber, which is at the moment in a low pressure, in order to slow down said slider in a second work motion when a programmable interval is approached from a second predetermined position for each working pass.

2. (original) The hydraulic circuit according to claim 1, characterized in that said first and second throttling valves (19, 19') are electromagnetically controlled.

3. (currently amended) The hydraulic circuit according to claim 1, characterized in that situated in said bypass (190, 190') of each throttling valve (19, 19'), among the same throttling valves (19, 19') and the hydraulic cylinder (5), is a manual flow control valve (20, 20'), able to reduce farther adjustably a flow rate through the throttling valve (19, 19') of the fluid being discharged from the chamber that is at the moment in a low pressure, so that a back pressure is generated in said low pressure chamber.

4. (original) The hydraulic circuit according to claim 3, characterized in that the throttled cross-section in the throttling valve (19) of the duct (10) communicating with the cylinder chamber (6) having the piston rod (4) is wider than the throttled cross-section in the throttling valve (19') of the duct (11) communicating with the other cylinder chamber (7).

5. (original) The hydraulic circuit according to claim 3, characterized in that said manual flow control valve (20, 20') comprises a dial (24) with a knob control (22) and a pointer (23) connected thereto to display the percentage reduction of required flow rate.

6. (new) A hydraulic circuit for linearly driving a machine-tool slider in both directions, comprising:

a hydraulic cylinder (5) with a piston rod (4) connected to a slider that travels until a first predetermined position for each pass of working operation of a workpiece to be bent;

two chambers (6, 7) within the hydraulic cylinder, one of the two chambers having the piston rod (4);

two ducts (10, 11) providing a pressurized fluid,

both of the two chambers (6, 7), in order to be in high and low pressure alternatively, communicating with respective ones of the two ducts (10, 11);

a three-position four-way valve (18) positioned operative on the two ducts (10, 11);

a check valve (12-13) positioned operative on the two ducts (10, 11),

a first bypass (190) located between the check valve and the four-way valve and comprising a first throttling valve (19), the first throttling valve (19) operated to generate an increased pressure in a first of the two chambers (6, 7) which

is at the moment in a low pressure, in order to slow down said slider in a first work motion when a programmable interval is approached from the first predetermined position for each working pass; and

a second bypass located between the check valve and the four-way valve and comprising a second throttling valve (19') mounted symmetrically opposite to the first throttling valve (19) and operated to generate an increased pressure in a second of the two chambers which is at the moment in a low pressure, in order to slow down said slider in a second work motion when a programmable interval is approached from a second predetermined position for each working pass.

7. (new) The hydraulic circuit according to claim 6, wherein, said first and second throttling valves (19, 19') are electromagnetically controlled.

8. (new) The hydraulic circuit according to claim 6, further comprising a manual flow control valve (20, 20') situated in each of the first and second bypasses (190, 190'), each manual flow control valve (20, 20') able to adjustably reduce a flow rate through the throttling valve (19, 19') of the fluid being discharged from the chamber that is at the moment in a low pressure, so that a back pressure is generated in said low pressure chamber.

9. (new) The hydraulic circuit according to claim 8, wherein, the throttled cross-section in the first throttling

valve (19) of the duct (10) communicating with the cylinder chamber (6) having the piston rod (4) is wider than the throttled cross-section in the second throttling valve (19') of the duct (11) communicating with the other cylinder chamber (7).

10. (new) The hydraulic circuit according to claim 8, wherein, each said manual flow control valve (20, 20') comprises a dial (24) with a knob control (22) and a pointer (23) connected thereto to display the percentage reduction of required flow rate.